

SYSTEM, METHOD AND STORAGE MEDIUM FOR PREFETCHING VIA MEMORY BLOCK TAGS

Abstract

A system for memory management including a tag cache in communication with one or more cache devices in a storage hierarchy.

The tag cache includes tags of recently accessed memory blocks where each tag corresponds to one of the pages and each tag includes tag contents. The tag contents control which memory lines of the corresponding memory block are prefetched into at least one of the cache devices. The tag contents are updated using a selected subset of processor references. The subset is referred to as filtered references. The tag contents are modified probabilistically at selected time or events.